

South Hills School of Business & Technology	
<b>Course Title:</b>	Architectural CAD I
<b>Course Number:</b>	IM 104
<b>Credit/Hours:</b>	3.5 credits/72 clock hours
<b>Course Length:</b>	12 weeks
<b>Instructor:</b>	Heather Fink
	<a href="mailto:paspike26@yahoo.com">paspike26@yahoo.com</a> Phone: 814-441-5089
<b>Instructional Materials:</b>	<u>Building Construction Illustrated</u> , 5 <sup>th</sup> Edition, Francis D.K. Ching, 2014, John Wiley & Sons, Inc.  archcad.wikispaces.com
<b>Course Description:</b>	An introduction to the concepts, practices, standards, and drafting techniques used in residential/light commercial architectural drafting and design utilizing AutoCAD. This will include but not be limited to elevations, floor plans, framing plans, foundation plans, and construction details. Additionally framing methods, wall sections, and general construction specifications are covered.
<b>Prerequisites:</b>	Technical Drawing II, Building Codes
<b>Course Objectives:</b>	<p>Upon completion of this course, the student will be able to utilize AutoCAD commands to create, modify, annotate and print an architectural drawing set consisting of:</p> <ul style="list-style-type: none"> <li>❖ Floor Plan(s)</li> <li>❖ Dimension Plan(s)</li> <li>❖ Exterior Elevations</li> <li>❖ Building Sections</li> <li>❖ Foundation, Framing, and Roof Plans</li> <li>❖ Create and insert blocks to enhance drawing creation and increase efficiency</li> <li>❖ Draw and identify common components used in typical construction.</li> <li>❖ A basic understanding of Door, Window, and Finish Schedules.</li> <li>❖ A review of Mechanical, Plumbing, Sprinkler, and Electrical Plans</li> </ul>
<b>Course Outline:</b>	Refer to Detailed Course Outline

<b>Teaching Strategies:</b>	During class time, there will be a lecture and discussion on the topic that is to be covered for that week. Most class time will include laboratory & homework time for Students to apply the principles in AutoCAD on the current topic. Students will be provided with topics as they pertain to real-world situations. Homework will be assigned and quizzes will be given.														
<b>Education Delivery Method:</b>	Residential														
<b>Requirements:</b>	Students are expected to attend all classes and be knowledgeable of assigned textbook readings or provided handouts. Each class is a continuation of the previous class. Participation is expected of all Students. Homework will be assigned. Several quizzes will be given during the course.														
<b>Evaluation:</b>	<p>The final grade will be calculated in the following manner:</p> <ul style="list-style-type: none"> <li>❖ 40% - Final Plans</li> <li>❖ 20% - Quizzes</li> <li>❖ 20% - Homework</li> <li>❖ 20% - Participation and Professionalism</li> </ul> <p>The South Hills School of Business &amp; Technology grading scale will be used:</p> <table border="0"> <tbody> <tr> <td>A = 93-100 (4.0)</td> <td>C+ = 77-79 (2.3)</td> </tr> <tr> <td>A- = 90-92 (3.7)</td> <td>C = 73-76 (2.0)</td> </tr> <tr> <td>B+ = 87-89 (3.3)</td> <td>C- = 70-72 (1.7)</td> </tr> <tr> <td>B = 83-86 (3.0)</td> <td>D+ = 67-69 (1.3)</td> </tr> <tr> <td>B- = 80-82 (2.7)</td> <td>D = 63-66 (1.0)</td> </tr> <tr> <td></td> <td>D- = 60-62 (0.7)</td> </tr> <tr> <td></td> <td>F = Below 60 (0.0)</td> </tr> </tbody> </table> <p><b>Minimum grade required as a major class = 70 %</b>  <b>Minimum grade required as a non-major class = 60 %</b>  <b>Minimum grade required for DMS, DPP, and DMP students = 77 %</b>  <b>Minimum grade required for HIT and ET students = 70 %</b></p>	A = 93-100 (4.0)	C+ = 77-79 (2.3)	A- = 90-92 (3.7)	C = 73-76 (2.0)	B+ = 87-89 (3.3)	C- = 70-72 (1.7)	B = 83-86 (3.0)	D+ = 67-69 (1.3)	B- = 80-82 (2.7)	D = 63-66 (1.0)		D- = 60-62 (0.7)		F = Below 60 (0.0)
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<b>Outside Preparation:</b>	<p>To adequately comprehend content and achieve success in South Hills courses, time outside of class spent reading, studying, reviewing, practicing, researching, and completing assignments is required. The number of credit hours assigned to a traditionally delivered course is defined for purposes of financial aid and is based on the following definition.</p> <p>In compliance with federal regulations, South Hills defines one (quarter system*) credit as either:</p> <ul style="list-style-type: none"> <li>• A minimum of 14 direct faculty instruction periods (lecture) with not less than two hours of out-of-class work per hour of lecture</li> <li>• Or 28 laboratory hours</li> <li>• Or 42 internship hours</li> <li>• Or an appropriate combination of all three per 10 – 12 week session</li> </ul> <p>* South Hills is a quarter system school, as opposed to a semester system school.</p>
<b>Class Policies:</b>	<p><b><u>Attendance</u></b>  <b>Students are required to email or call their instructor if they will be absent from class.</b></p> <p>Classroom policy:</p> <p>Attendance shall count towards your Participation and Professionalism Grade.</p> <p>Attendance is critical to your success in the workplace and critical to your success at school. These habits you develop now will carry with you into the workplace and as a result, attendance will be handled as it is in the workplace. Each student will receive “personal days” at the beginning of the term. Please use these “personal” days wisely because when they run out, as in the workplace, an exception will not be granted. Attendance shall count towards your Participation and Professionalism Grade. For this course you will be permitted (2) “personal days”. The following will reflect the grading:</p> <ul style="list-style-type: none"> <li>a) 1-2 = A(100)</li> <li>b) 3-4 = B(3=87, 4=84)</li> <li>c) 5 = C(78)</li> <li>d) 6 = D(65)</li> <li>e) 7 = F(0)</li> </ul> <p>School policy:</p> <p>In order to assure the best possible training, prompt and regular attendance is expected. All students must be present for tests and examinations. A student should notify the school of his/her absence and the cause preferably before the first class in the morning. If the student must leave the school early or arrives late, he/she is required to sign in or out at the main desk.</p>

Repeated absences or late arrival for class will necessitate the student to meet with the school Director or Academic Affairs Officer to discuss the student's willingness to continue in the program. Excessive absences could result in dismissal.

If a student is absent from school for 14 consecutive calendar days without a legitimate excuse and has not notified the school of such circumstances, the student will be withdrawn from school.

**Make-up policy**

Make-up Work: Make-up quizzes are not allowed unless arranged in advance, or per instructor's allowance due to extenuating circumstances that are explained at the time of the occurrence. Homework may be turned in (1) day late for a maximum of 2 points.

South Hills does not charge additional fees for make-up work in any class.

Students will not be charged any additional fees for make-up work.

**Deadline policy**

Deadlines will be given by the instructor prior to issuing assignment.

Assignments are due by the date noted, no extensions will be provided unless arranged in advanced due to extenuating circumstances that are explained at the time of occurrence.

**Others:**

1. Being on time to class is expected. However, if you are more than 5 minutes late for class or site visits you will be considered Tardy. Each Tardy will be equal to -5 points.
2. If you reach a total of -50 points, or higher, this will reflect 0 points obtained for Participation and Professionalism. The maximum grade you will be able to obtain will be an 80%.
3. No extra credit will be given.
4. If a "Lowest Grade" dropped option is offered, a "0" that has been obtained from the Honesty Policy requirements will not be permitted to be dropped. The next lowest grade would be selected.
5. Materials Needed: Storage disk (flash memory), Calculator, Note Pad, Class assigned book, all handouts.

	<p>6. Expectations:</p> <ul style="list-style-type: none"> <li>a) If you miss a class, it is your responsibility to get the notes and assignments that you missed.</li> <li>b) No cell phones will be allowed to be used in class; this also applies to text messaging. Each occurrence that is observed will reflect in -5 points per occurrence.</li> <li>c) No emailing or surfing the internet is allowed, except if it is course related. No game playing or social networking sites will be allowed. Each occurrence that is observed will reflect in -5 points per occurrence.</li> <li>d) No listening to music through the computer or on personal headsets will be allowed.</li> <li>e) School policy, as it pertains to eating and drinking in the laboratory, will be strictly followed.</li> <li>f) If Field Trip(s) are arranged it is the Students responsibility to make arrangements to get to the location(s). Additionally, lateness will not be tolerated. Attendance is required just as it would be for the classroom.</li> </ul> <p>7. Homework will be graded on the following policy:</p> <ul style="list-style-type: none"> <li>a) 0 points if homework is incomplete</li> <li>b) 3 point maximum if homework is complete but perfunctory</li> <li>c) 6 points maximum if homework is complete and comprehensive</li> </ul> <p>8. Participation is graded based on attendance and class behavior.</p> <p>9. Course Project guidelines will be further detailed in the later weeks; grading is based on completion and accuracy.</p>
<b>Academic Honesty Policy:</b>	<p>It is the policy of South Hills School to respond to academic honesty violations during the student's academic study with the following procedure:</p> <ul style="list-style-type: none"> <li>1. First Offense—an "F" (0%) will be given for the exam or assignment.</li> <li>2. Second Offense—the student will be given an "F" in the particular course.</li> </ul> <p>Note: Failure of a course may lengthen the time for program completion. For the DMS, DPP, and DMP programs, failure of a course will result in dismissal from the program.</p> <ul style="list-style-type: none"> <li>3. Third Offense—the student will automatically be expelled from school.</li> </ul> <p>Academic honesty violations include cheating, plagiarism, and other forms of academic dishonesty. When a student violates the honesty policy, he/she will sign a document to acknowledge understanding of the violation and consequences. This document will be kept in the student's academic file.</p>
<b>Bibliography:</b>	None
<b>Revision Date:</b>	08/28/16

Course Name: Architectural CAD I

Total Hours: 72      Lecture Hours: 28      Lab Hours: 44      Homework Hours: 56

**Detailed Course Outline**

Week Hours	Session Topic	Resources	Assignments	Number of HW Hours
Week 1 Hours:	Review course objectives, General Drafting Information, Project Information	Text: Building Construction Illustrated, archcad.wikispaces.com	Vocabulary & Reading Assignments	4
Week 2 Hours:	Site & Building Code Information	Text: Building Construction Illustrated, archcad.wikispaces.com	Vocabulary & Reading Assignments	4
Week 3 Hours:	Building Material Information, First Floor Plan, Office Layout	Text: Building Construction Illustrated, archcad.wikispaces.com	First Floor Plan, Vocabulary & Reading Assignments	5.5
Week 4 Hours:	Door & Window Requirements	Text: Building Construction Illustrated, archcad.wikispaces.com	First Floor Plan, Vocabulary & Reading Assignments	5.5
Week 5 Hours:	Kitchen & Restroom Requirements	Text: Building Construction Illustrated, archcad.wikispaces.com	First Floor Plan, Vocabulary & Reading Assignments	5.5
Week 6 Hours:	Stair & Apartment Information	Text: Building Construction Illustrated, archcad.wikispaces.com	Second Floor Plan, Vocabulary & Reading Assignments	5.5
Week 7 Hours:	Exterior Building Material Information, Elevations	Text: Building Construction Illustrated, archcad.wikispaces.com	Elevations, Vocabulary & Reading Assignments	5.5
Week 8 Hours:	Foundation, Framing & Roof Plan	Text: Building Construction Illustrated, archcad.wikispaces.com	Foundation, Framing, & Roof Plans, Vocabulary & Reading Assignments	5.5
Week 9 Hours:	Building Section	Text: Building Construction Illustrated, archcad.wikispaces.com	Section, Vocabulary & Reading Assignments	5.5
Week 10 Hours:	Room/Door/Window Tags, Sheet Layouts, Annotation, Dimensioning	Text: Building Construction Illustrated, archcad.wikispaces.com  Source Book of American Architecture by Smith, G.E. Kidder (Princeton Architectural Press, 1996)	Tags, Sheet Layout, Annotation, Dimensioning  1 page report on American Architecture	3

Week 11 Hours:	Dimensioning & Annotation	Text: Building Construction Illustrated, archcad.wikispaces.com	Dimensioning, Annotation, Reading Assignments	3
Week 12 Hours:	Discussion on Door/Window/Finish Schedules, Cover Sheet, Construction Notes, Interior Elevations, Construction Details, ADA Signage, HVAC, Plumbing, Sprinkler, & Electrical Plans, Finalize Construction Plans	Text: Building Construction Illustrated, archcad.wikispaces.com	Create a complete set of Construction Plans	5

TOTAL 57.5